

Amendments to the Claims:

Claim 1 (currently amended): A substrate carrier for securing semiconductor substrates, comprising:

a cassette having,

an upper substrate entrance[.];

a lower substrate support opening[.];

a first end partition disposed opposite a second end partition;

a first side panel disposed opposite a second side panel, said panels having an inner

surface thereof, with an aligned train of paired channels for holding substrates, said

channels are formed having two side surfaces and a bottom surface, said channels

having a curbing member with a sloped profile, is disposed on an upper side

of each channel, said curbing member enables a circular substrate to slide by said

sloped profile past a necked portion of opposing channels, thereafter securing said

substrate under said curbing member.

~~a first side panel having an inner surface thereof, a train of parallel~~

~~substrate support channels, said support channels having a bottom surface, a left side~~

~~surface and a right side surface, said left and right side surfaces are perpendicular to said~~

~~bottom surface.~~

~~a second side panel opposite said first side panel, having, on an inner surface a matching~~

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~~—train of parallel substrate support channels;~~
~~an arcuate curbing member disposed on a left side surface in each of said channels, and~~
~~—including~~
~~—a top end having a sloped segment facing said entrance of said cassette permitting a~~
~~—substrate to slide by a necked portion of said substrate support channel, provided by~~
~~—said sloped segment, into a stepped bottom, therein securing said substrate.~~

Claim 2 (cancelled):

Claim 3 (cancelled):

Claim 4 (currently amended): The substrate carrier according to claim 1 wherein said shape of said curbing member restricts said substrates from jutting ~~towards said substrate~~ entrance forward.


Claim 5 (currently amended): The substrate carrier according to claim 1 wherein all the substrate support channels ~~defined by the substrate size~~ are equally spaced from each other ~~immediately adjacent substrate at equal distances~~ .

Claim 6 (original): The substrate carrier according to claim 1 wherein said ~~substrate~~ support channels are configured to hold substrates in a vertical orientation.

Claim 7 (currently amended): The substrate carrier according to claim 1 wherein said

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parallel and perpendicular surfaces of said ~~substrate~~ support channels provide[s] stress free containment of a fragile substrate by providing ~~substrate~~ freedom of movement within the cassette while said curbing member preventing said substrate from jutting forward ~~past said curbing member~~.

Claim 8 (currently amended): The substrate carrier according to claim 7 wherein said ~~substrate~~ support channels having a “” shape of ~~three perpendicular surfaces~~ intended to prevent[s] wedging of said substrate's chipping and breaking of highly stressed substrate edges, therefore reducing chipping and breaking of said highly stressed edges.

Claim 9 (currently amended): The substrate carrier according to claim 1 wherein said ~~stepped~~ bottom of said ~~arcuate~~ curbing member is ~~placed~~ shaped to prevent[ing] so that said substrate from does not jutting out beyond the top edge of said cassette.

Claim 10 (currently amended): The substrate carrier according to claim 1 wherein a[n] bottom edge of said sloped profile is ~~determined~~ shaped to permit allow the substrate freedom to move laterally ~~to the limit provided by an offset dimension which is the difference of the lateral offset and the substrate diameter.~~ under said curbing member.

Claim 11 (cancelled)

Claim 12 (cancelled)

Claim 13 (cancelled)

Claim 14 (cancelled)

Claim 15 (cancelled)

Claim 16 (cancelled)

Claim 17 (cancelled)

Claim 18 (cancelled)

Claim 19 (cancelled)

Claim 20 (cancelled)

Claim 21 (currently amended): A method for protecting semiconductor ~~wafers~~ substrates in a ~~wafers~~ substrate carrier, comprising the steps of:

providing a cassette having,

an upper ~~wafer~~ substrate entrance[.];

a lower ~~wafer~~ substrate support opening[.];

a first side panel having an inner surface thereof, a train of parallel ~~wafer~~ substrate support channels, said substrate support channels having a bottom surface, a left side surface and a right side surface, said left and right side surfaces are perpendicular to said bottom surface[.];

a second side panel opposite said first side panel[,], having, on an inner surface, a matching train of parallel ~~wafer~~ substrate support channels;

a[n] ~~areuate~~ curbing member disposed on a left side surface in each of said substrate support channels, and including,

a top end having a sloped profile facing said entrance of said cassette

[permitting] and a bottom end having a flat bottom, said top end enables a wafer substrate to easily slide by a said sloped profile and past a necked portion of said wafer substrate support channel, provided by said sloped segment, into a stepped bottom, there[~~in~~] after retaining and securing said wafer substrate under said curbing member.

Claim 22 (currently amended): A method according to claim 21 wherein said upper entrance and said lower ~~easette~~ substrate support opening providing liquid chemical access to all surfaces of contained ~~wafers~~ substrates.


Claim 23 (currently amended): A method according to claim 21 wherein said ~~wafer~~ substrate support channel surfaces are planar thereby permitting unrestrained freedom of the ~~wafers~~ substrates during wet processes and during handling.

Claim 24 (currently amended): A method according to claim 21 wherein said shape of said curbing member in operation with said substrate support channel, restricts said ~~wafer~~ substrate from jutting towards said ~~wafer~~ cassette entrance during handling.

Claim 25 (currently amended): A method according to claim 21 wherein all the ~~wafer~~ substrate support channels defined by [the] a wafer substrate's size diameter, are equally spaced from immediately adjacent substrates ~~at equal distances~~.

Claim 26 (currently amended): A method according to claim 21 wherein said ~~wafer~~ substrate support channels are configured to hold ~~wafer's~~ substrate's in a vertical orientation.

Claim 27 (currently amended): A method according to claim 21 wherein said parallel and perpendicular surfaces of said ~~wafer~~ substrate support channels provide[s] stress free containment of a fragile ~~wafer~~ substrate by providing ~~wafer~~ freedom of movement within the cassette while preventing said ~~wafer~~ substrate from jutting forward past said curbing member.

Claim 28 (currently amended): A method according to claim [7] 27 wherein said ~~wafer~~ substrate support channels having a “” shape of ~~three perpendicular surfaces to~~ prevent[s] wedging of said wafer's substrate's ~~chipping and breaking of highly stressed substrate edges, resulting in reduced wafer substrate damage.~~

Claim 29 (currently amended): A method according to claim 21 wherein said stepped bottom of said ~~areuate~~ curbing member is placed so that said ~~wafer~~ substrate does not jut out beyond the top edge of said cassette.

Claim 30 (currently amended): A method according to claim 21 wherein an edge of said

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sloped profile of said curbing member is ~~determined~~ formed to ~~permit~~ allocate the ~~wafer~~
substrate freedom to move laterally to the limit provided by an offset dimension which is
the difference of the lateral offset and the ~~wafer~~ substrate's diameter.